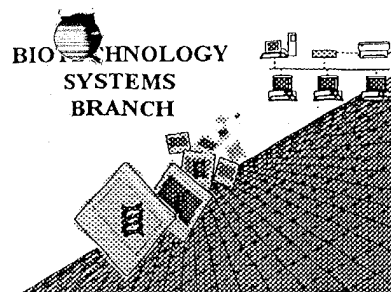


RAW SEQUENCE LISTING ERROR REPORT



0590
05/25

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/778,900

Source: 1645

Date Processed by STIC: 5-7-01

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

1645

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001

TIME: 18:00:15

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\I778900.raw

Does Not Comply
Corrected Diskette Needed
See p. 3

RECEIVED

MAY 24 2001

TECH CENTER 1600/2900

3 <110> APPLICANT: John Craig SMITH
5 <120> TITLE OF INVENTION: DIAGNOSTIC METHOD
7 <130> FILE REFERENCE: 009901/0277123 - LD SG/PHM70675/US
9 <140> CURRENT APPLICATION NUMBER: US 09/778,900
10 <141> CURRENT FILING DATE: 2001-02-08
12 <150> PRIOR APPLICATION NUMBER: GB 0004232.5
13 <151> PRIOR FILING DATE: 2000-02-24
15 <160> NUMBER OF SEQ ID NOS: 24
17 <170> SOFTWARE: MS Word
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20 <211> LENGTH: 1073
21 <212> TYPE: DNA
22 <213> ORGANISM: Human
24 <220> FEATURE:
25 <221> NAME/KEY: UNSURE
26 <222> LOCATION: 396 /
27 <223> OTHER INFORMATION: any
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32 ttagtcattg tttggaatga ctttataaaa atgctttgca ttttttagca agaccatcat 180
33 ataattgttt aagatcaagt acaacacata aggtcactgg agaatttgag tgcattgttat 240
34 ccaagatagg atggttagagc tcacattaca gaaatgtagt gtgggaatag taaggagtgc 300
35 tttaatagaa attgcacacc taagtgtgat gagtgtatgt gaatgtggag aagtactttc 360
W--> 36 tgcacctggc cacacagttt caaccaaagt atccnnaaat aaaacagtgg atgttaacgg 420
37 aatatctagg atttgtaaag ttgttttctt ctgatgact ttgagatctc tttatttctc 480
38 agtcttcttc tgaaataaag actgactacc tatcaattat aatggaccca gatgaagttc 540
39 ctttggatga gcagtgtgag cggctccctt atgatgccag caagtgggag tttgcccggg 600
40 agagacttaa actgggtaag atatttgttc aacagattca taaacctata ctgagcacat 660
41 attacatgaa aaacactgtg ctttgagaga tgcgaaagta aactagacct gggattctac 720
42 cctccagctg ctccacagact agcaagggag atggacacaa aagtaataaa ttccaatgca 780
43 atgctcagat aacagtacaa ggtgacacgc agcactgtt tgttcttgca acagttatta 840
44 ggcaccttct ctgagcagca gacactggtc taagccctgg agacacaaag gtgcttgcat 900
45 ctcttccctc aaagggctca gtctggagat aggtgcaaaa gtggttaagtg aaggggggag 960
46 gagagagagg cattacaagt acacgcacgc ttcataatga aactgttgag ggattagaaa 1020
47 tatgtgatcc agaacataat tgagggtggc aaggaacagt gaaatcaaca ttc 1073
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51 <211> LENGTH: 1480
52 <212> TYPE: DNA
53 <213> ORGANISM: Human
55 <220> FEATURE:
56 <221> NAME/KEY: UNSURE
57 <222> LOCATION: 132 /
58 <223> OTHER INFORMATION: any
60 <220> FEATURE:
61 <221> NAME/KEY: UNSURE
62 <222> LOCATION: 359

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001
TIME: 18:00:15

Input Set : A:\09778900.txt
Output Set: N:\CRF3\05072001\I778900.raw

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63 <223> OTHER INFORMATION: any
65 <220> FEATURE:
66 <221> NAME/KEY: UNSURE
67 <222> LOCATION: 386
68 <223> OTHER INFORMATION: any
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72 tctgaacctg tttctccatg tataaataag aactacttcg taaaattggt ggaaacacta 120
W--> 73 aacaagaaat gnacctaaag cttttaatat accagctcac acagagtaag cattcagtaa 180
74 ataccacca ctcttaattt ttttttttta tctgatctaa gatgctgtct agaagcccag 240
75 gcaagagcac aatagactot gcaactocag aggtagtcag gctcctggac accgtagggc 300
W--> 76 ccctgtgcta gttcacgac cattttgaga agtgaaacgc tctcatttct catcaggcna 360
W--> 77 ttgccagtgt agggactggt ttcccnctgc tgtgctggag ctccctttca cctgggtcct 420
78 ttctggctctc ttcaaaggat gcagcactac acatggagcc taagaaagaa aaaatggagc 480
79 caggcctgga acaaggcaag aaaccaagac tagatagcgt caccagcagc gaaagctttg 540
80 cgagctccgg ctttcaggaa gataaaagtc tgagtgatgt tgaggaagag gagggtaggt 600
81 attaatctct tcctgtccta cgcgctgaga tatttttaca acatactatg catctctgaa 660
82 atttttttct tatttatcac tctaataaac atccgtggga gactcgaatg gtaatgtcct 720
83 gaggagataa gatttgaatt aagataattt acagagttac taattttgac aggggaactgt 780
84 accgttttct cccctcaggg attttcatct taatggatca tccccctgcc cccatgcttg 840
85 gataaagtgg gctggaggcc tggaaaaatc tctggtgttc atggtgaaac tcaaatacto 900
86 ttaaaaatga actctgatct actgtttggt ttgttttatg ttttgctaac attgttccaa 960
87 taaactggga tttggtggga taacaagagc cattacaaac agttacggtt ctaatgcttt 1020
88 ccagattctg acggtttcta caaggagccc atcactatgg aagatctgat ttcttacagt 1080
89 tttcaagtgg ccagaggcat ggagttcctg tcttcagaa aggtcagctt tgctgtttac 1140
90 tgttttttct ctctgccagg gctggacaca cacccttgct ataaattcat ttttcctagt 1200
91 atttgctgat acctatgttc ttaaatgtag aacaaacacc actgcaagtg cottaatttg 1260
92 ccttgatatg aggagttttg agaatgagga gtcattgata ccagtggata gaacttaatt 1320
93 ctggggaaaa ctacacaggtt tcagactaga caaacctggc atoggtctct cacagtatcc 1380
94 tctggcatat tttcaaactc ggcccaaata tcagaagaca tgacttcata ggagagctac 1440
95 tattaatata gccatatagg gcctccccc aaaactgcag 1480
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99 <211> LENGTH: 726
100 <212> TYPE: DNA
101 <213> ORGANISM: Human
103 <220> FEATURE:
104 <221> NAME/KEY: UNSURE
105 <222> LOCATION: 59
106 <223> OTHER INFORMATION: any
108 <400> SEQUENCE: 3
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110 ccttcagggg actcagtata gcaactctagc tccctctttt agcgtaaacac tgcatactat 120
111 ggtgttctct atgttaggaa accagagctg ctctcggaat tgatttatag gccgtatggt 180
112 atctgggagg tgaccccatg gacactcggg ttgaatgtgc tttgttttca tgccctctct 240
113 ctcaaggccc ccttgccctc ttctagactc gacttctctt gaaatggatg gctcctgaat 300
114 ctatctttga caaaatctac agcaccaaga gcgacgtgtg gtcttacgga gtattgctgt 360
115 gggaaatctt ctcttaggtt aaatttggga gaaggaagaa atcaaacagc ccagaaataa 420
116 atgtctgcat cttctgctga atgtcctttg gttggacagc ctttagatta gaacctactg 480
117 taacaaaaaa ctcttaaagt gtaatgggoc catgtagact ctcatagtag taatggcgta 540

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001
TIME: 18:00:15

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\I778900.raw

118 cgcatgtctg cctctactg taaaagggtt ttatatgac atgaacaagg tcagaacaag 600
119 gtcattgtaaa agggctttat acgatcatga acaagggtat aaagtctgaa gcaaagtact 660
120 ttttctgtac ttgccaatt ctgcttttc aattcctcaa caccacacc totaatgccc 720
121 ttaccg 726

124 <210> SEQ ID NO: 4

125 <211> LENGTH: 1352

126 <212> TYPE: DNA

127 <213> ORGANISM: Human

129 <220> FEATURE:

130 <221> NAME/KEY: UNSURE

131 <222> LOCATION: 132

132 <223> OTHER INFORMATION: any

134 <220> FEATURE:

135 <221> NAME/KEY: UNSURE

136 <222> LOCATION: 878

137 <223> OTHER INFORMATION: any

139 <400> SEQUENCE: 4

140 ctgcagaggc cacaggcaca acaagaagac tgggtatcca tgagctctgg tgggttggtt 60

141 agtctgcctt ggtagacgtg tttccactg accacaggac ctggcccaga cagcctttta 120

142 agtgcctggtg cctataaacc aaacctaaaa atgaagcagg gtcacatagt acagaaagct 180

143 tgggctttat gcggatgatg acagccctcc cttttagtagta cgtaaggcaa tgcataggat 240

144 gatcactgct ctccaactat ttctgttgct gttttcccca ccagctatca gatcatgctg 300

145 gactgctggc acagagaccc aaaagaaagg ccaagatttg cagaacttgt ggaaaaacta 360

146 ggtgatttgc ttcaagcaaa tgtacaacag gtaaaactaa atttatctac atcaaatgc 420

147 ctttgaatgt acgtcagggg ggcattttat ttgttttttt ttttaagagct attaatataa 480

148 tagctgagat cagaagttaa aaaaaagggt gtgtgtgtgt gtatacagaa ttatcttctc 540

149 aaaacacaac caagattgtg gcaaatgaca tagtcaaagt tgacataatg gttcatagaa 600

150 attgttgaag tcagaatttg tgcaacgaga gctctacett tggattttta ggatggttaa 660

151 gactacatcc caatcaatgc cactactgaca ggaaatagtg ggtttacata ctcaactcct 720

152 gccttctctg aggacttctt caaggaaagt atttcagctc cgaagttaa ttcaggaaag 780

153 tctgatgatg tcaggtaaga tttcttctc aaactttata tcacagaatt ttccaacaaa 840

W--> 154 aaaaagaaag aaagaaagac gaaagagaaa gaaagacnha aagagagaaa gaaagagaga 900

155 aagaaagaaa gagagaaaga aagaaagaaa gattatgttg atcaccaccc atatgcccac 960

156 cccctaaatt caactgttaa cattttgccc tattttgtct attatactct ctatgattgt 1020

157 gtttgttacg gatttttctt ttggccaaac catttaaaag gaggcttaaa gcataatagc 1080

158 actttactcc taaatacttt agtatacatt ttgtaagaag gctattgttg ctgggcacag 1140

159 tggctcgtgc ctgtaatgcg agcaatttgg gagactgagg tgggaggatc acttgagcct 1200

160 aggagttcaa aatctgcctc ggcaacatag agagacctca tcttactaaa aatttaaaaa 1260

161 ttagccgggt gtggtggtgg gcacctgtag toccagctac tcaggaggct gaggttggag 1320

162 gatcacttga gcccaggaga tggaggctgc ag 1352

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167 <212> TYPE: DNA

168 <213> ORGANISM: Human

170 <400> SEQUENCE: 5

171 agtggatgtc tccaatagtc tttctaata catcatcaac aaaagggtcag taggtagtta 60

172 tagagacatc atacaacact acccaattct toccaatctg taatcacaca cacacacaaa 120

173 atacaagcct ggcaactagca ctcgattatg ccattaaata atatttagcc gtgtagccat 180

174 gccagggtcac ttggccacct cacatccttt toagagcacc tgataaagtc ataccacttc 240

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001
TIME: 18:00:15

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\I778900.raw

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175 cctgcacatc atttctctcc tgtgccattg ggcactcaga cgagatgatg cctccagtct 300
176 ctccctacgtc tggcattctc tgatttcaca acggaccaga gtaggtccct ctgggagttt 360
177 cctcaaccct acagaatgtg aattgacaac cacgggaggc agtggcaatg ctgtcaggat 420
178 tcccaggggt cacggcgggg agatcggggc ctcaggagtt aggtgattcc tgttggtgtg 480
179 ttggttcac c tttagctggga tatggtgcct gtggtctcct gactcattag agctggatgc 540
180 cttttcctgt cttgataatt ctttctgttt cttcattaga tatgtaaag ctttcaagtt 600
181 catgagcctg gaaagaatca aaacctttga agaactttta ccgaatgcca cctccatggt 660
182 tgatgtaagt cgtgaagtta aggtacctag tgcactccga tagaccctt cttcagatcc 720
183 cttccaaaca ccaacgccag taatgtagta gttcttggtc agtgagggtc tggattcagg 780
184 agtggctgaa atgacagtgt ggggaggact gacaactaga cctagctgtg cagaactaat 840
185 ttgaaagtag agttccatgc actcactcca ggacccaagt cctgcgtgg taggaattta 900
186 gaccttgagg aaactccatt gtgtgtttct aagctgctta gctgtcagt atgcagcttt 960
187 gctttcagag taacagagga actcccagct gtgtgggtga tgggctttgt gatgtaacag 1020
188 agagcgcgtt cctgcaagca gccttgaggc tgggaggggt ccacctaaag cttatgctcc 1080
189 tttccctga ggttctacag attgaacagc tgtgttccta cccaatcaca atggggagaag 1140
190 ctaaccagta tagcctggca aacaagaggt cttccagctc ttctctctaa agccctgtga 1200
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194 <210> SEQ ID NO: 6
195 <211> LENGTH: 31
196 <212> TYPE: DNA
197 <213> ORGANISM: Human
199 <400> SEQUENCE: 6
200 ggaaaaaatg ccgacrgaag gagaggacct g 31
203 <210> SEQ ID NO: 7
204 <211> LENGTH: 31
205 <212> TYPE: DNA
206 <213> ORGANISM: Human
208 <400> SEQUENCE: 7
209 gaaatggatg gctccygaat ctatctttga c 31
212 <210> SEQ ID NO: 8
213 <211> LENGTH: 31
214 <212> TYPE: DNA
215 <213> ORGANISM: Human
217 <400> SEQUENCE: 8
218 tgatgatgtc agataygtaa atgctttcaa g 31
221 <210> SEQ ID NO: 9
222 <211> LENGTH: 31
223 <212> TYPE: DNA
224 <213> ORGANISM: Human
226 <400> SEQUENCE: 9
227 aaaaagacac ggacaygctc ccctgggacc t 31
230 <210> SEQ ID NO: 10
231 <211> LENGTH: 31
232 <212> TYPE: DNA
233 <213> ORGANISM: Human
235 <400> SEQUENCE: 10
236 gatcggactt tccgcyccta gggccaggcg g 31
239 <210> SEQ ID NO: 11
240 <211> LENGTH: 31

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001

TIME: 18:00:16

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\I778900.raw

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249 <211> LENGTH: 31
250 <212> TYPE: DNA
251 <213> ORGANISM: Human
253 <400> SEQUENCE: 12
254 tctggcgggc gggctkttgg ccgcggggag c 31
257 <210> SEQ ID NO: 13
258 <211> LENGTH: 31
259 <212> TYPE: DNA
260 <213> ORGANISM: Human
262 <400> SEQUENCE: 13
263 gaatgtcctt tggtrgaca gcctttagat t 31
266 <210> SEQ ID NO: 14
267 <211> LENGTH: 31
268 <212> TYPE: DNA
269 <213> ORGANISM: Human
271 <400> SEQUENCE: 14
272 aggtacctag tgcacyccga tagaccctt c 31
275 <210> SEQ ID NO: 15
276 <211> LENGTH: 34
277 <212> TYPE: DNA
278 <213> ORGANISM: Human
280 <400> SEQUENCE: 15
281 atgggtttca tgtaacttg gaaaaaatgc gtac 34
284 <210> SEQ ID NO: 16
285 <211> LENGTH: 28
286 <212> TYPE: DNA
287 <213> ORGANISM: Human
289 <400> SEQUENCE: 16
290 cattcatgat ggtaagatta agagtgat 28
293 <210> SEQ ID NO: 17
294 <211> LENGTH: 35
295 <212> TYPE: DNA
296 <213> ORGANISM: Human
298 <400> SEQUENCE: 17
299 tcttggttgc tgtagatttt gtcaaagata gctgc 35
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303 <211> LENGTH: 24
304 <212> TYPE: DNA
305 <213> ORGANISM: Human
307 <400> SEQUENCE: 18
308 accccatgga cactcgggtt gaat 24
311 <210> SEQ ID NO: 19
312 <211> LENGTH: 25
313 <212> TYPE: DNA

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/778,900

DATE: 05/07/2001

TIME: 18:00:17

Input Set : A:\09778900.txt

Output Set: N:\CRF3\05072001\I778900.raw

L:36 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:73 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:76 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:77 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:154 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4